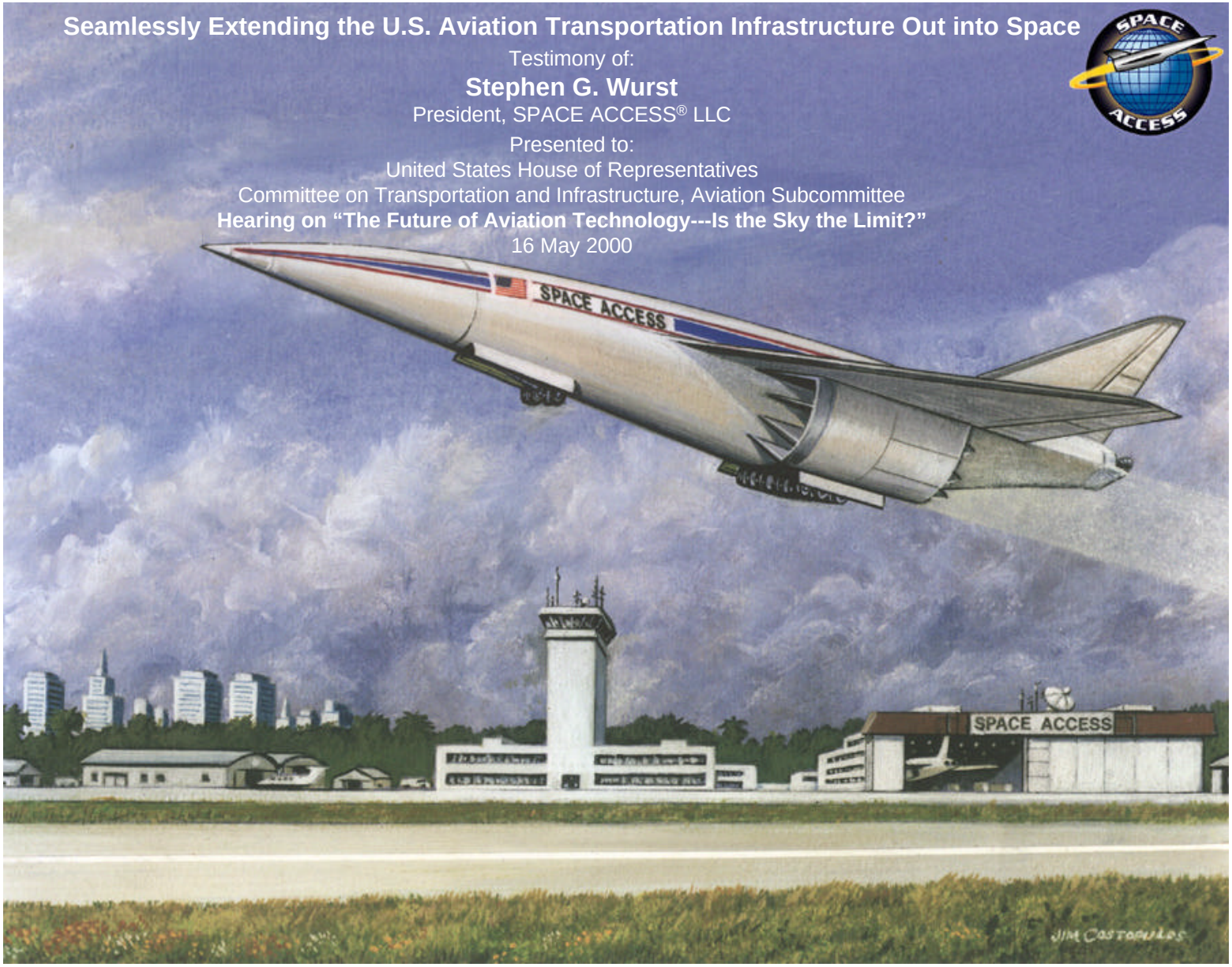

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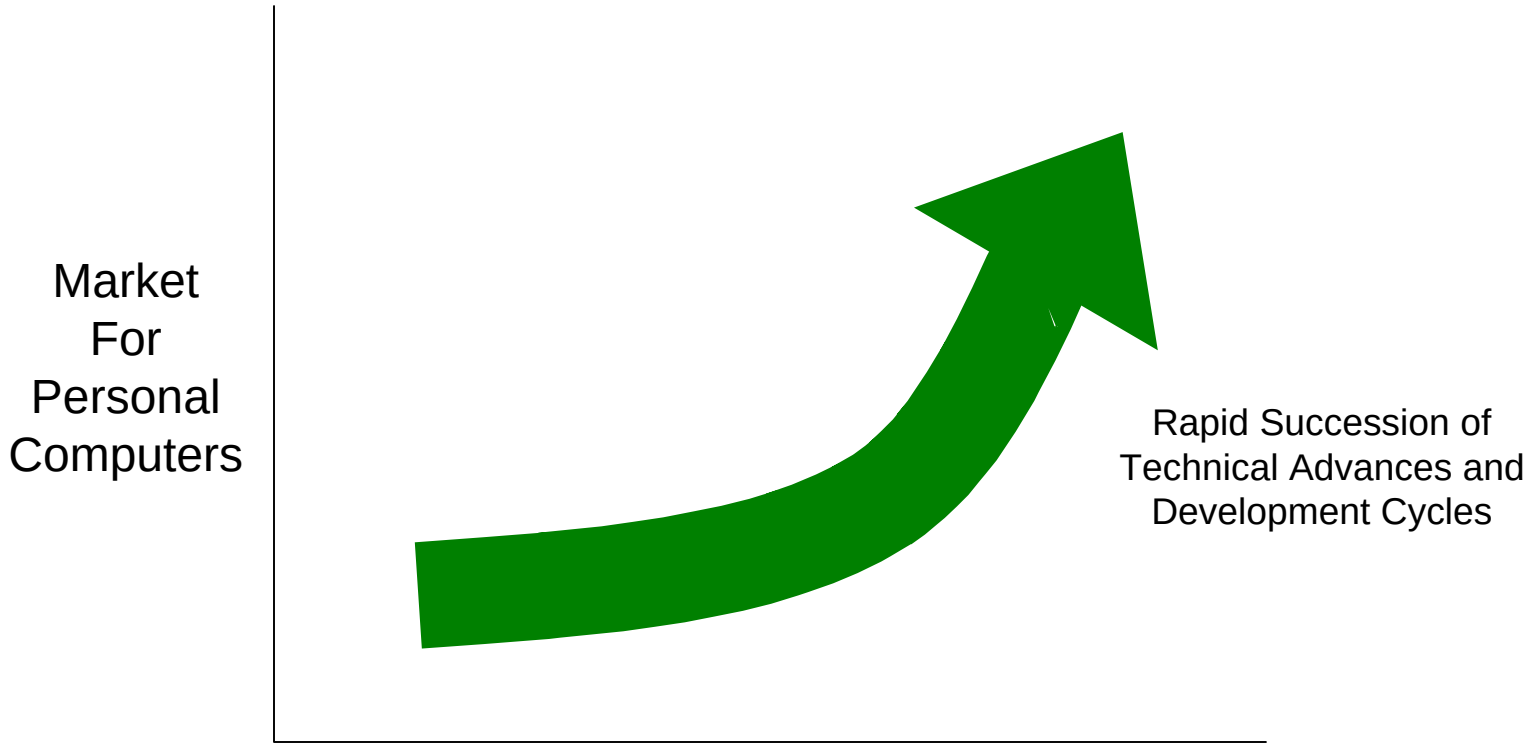
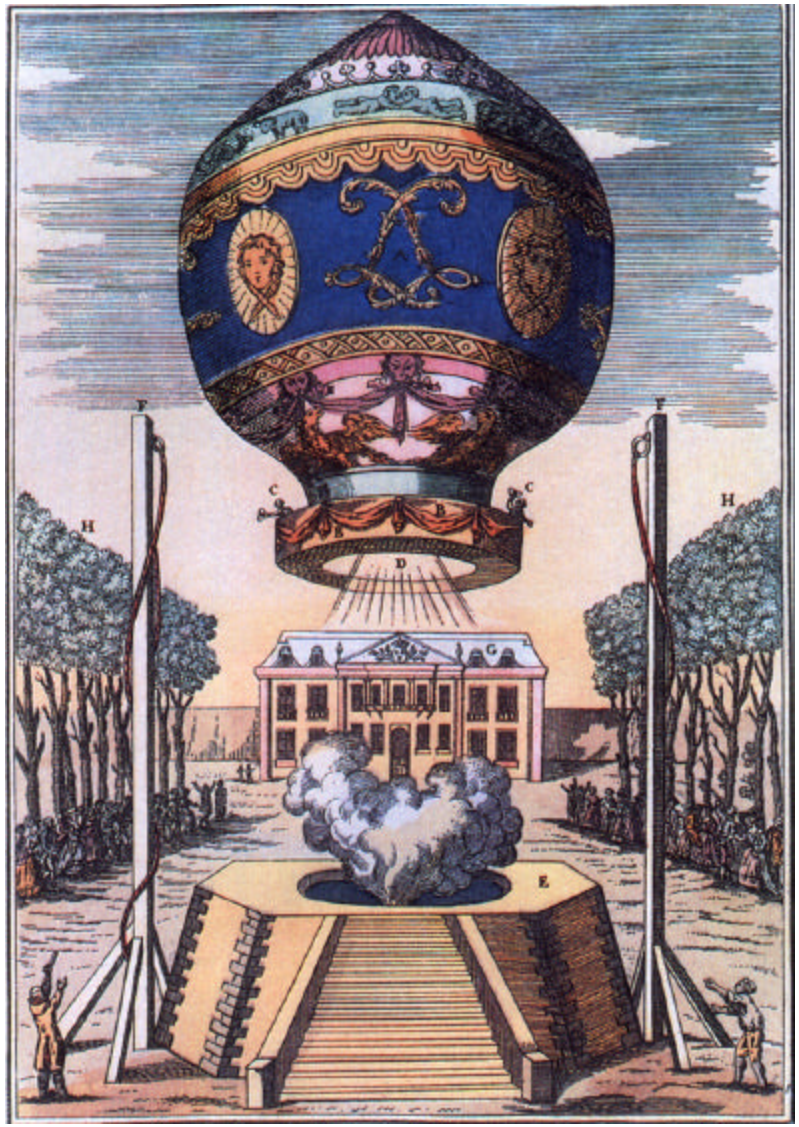
Figure 1

Growth of Personal Computer Industry

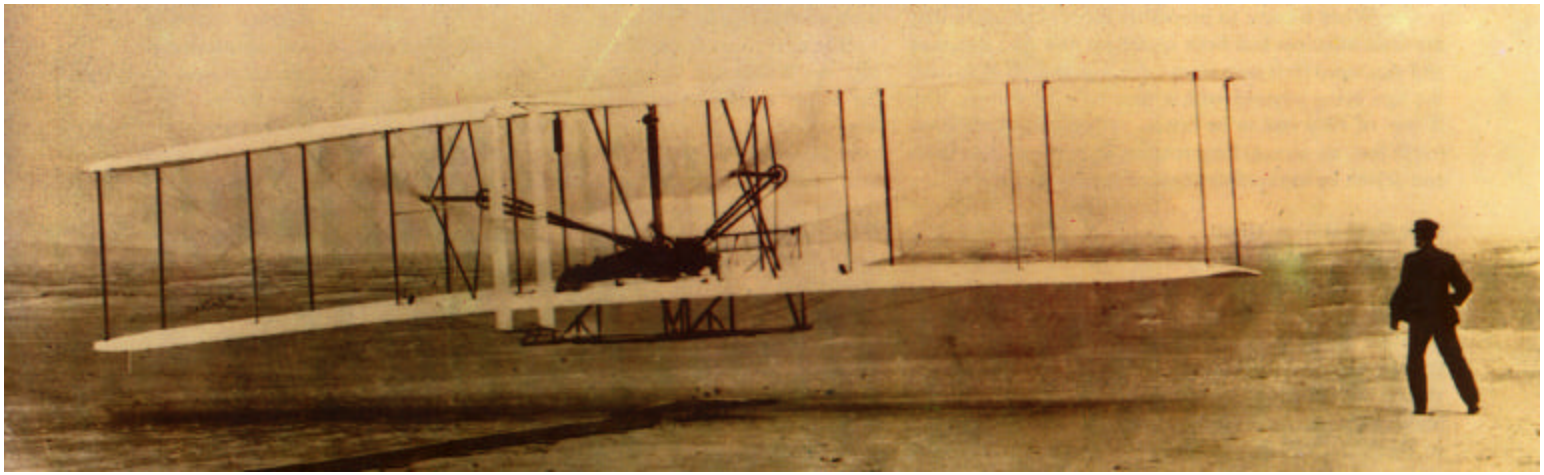


Montgolfier Brothers:
First to Fly Passengers (Destination Was Unpredictable)



1783

Wright Brothers:
First to Demonstrate Controlled Flight



- Their flight demonstration made flying, as Wilbur Wright stated, “a thing to be regarded as a normal feature of the world’s future.”

- Initiated a rapid succession of aviation-related technological innovations and development cycles.

1903

de Havilland Comet:
First to Offer “Jetliner” Service

Compared to first scheduled international passenger service in 1919:

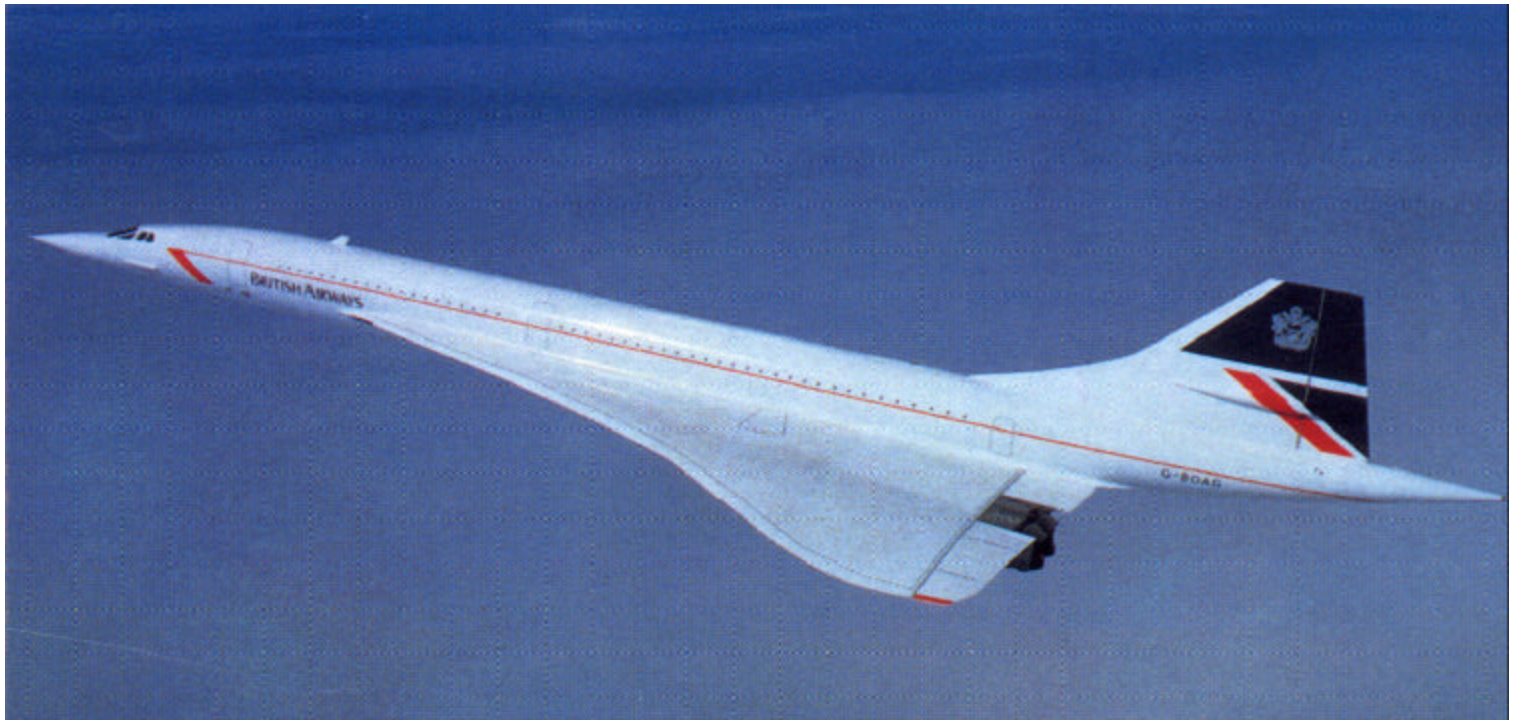
- Reduced ticket prices by a factor of 20
- Reduced en route travel time by a factor of 5

1952

Lack of Passenger-Oriented Improvements Since 1960 is Impeding Industry Growth

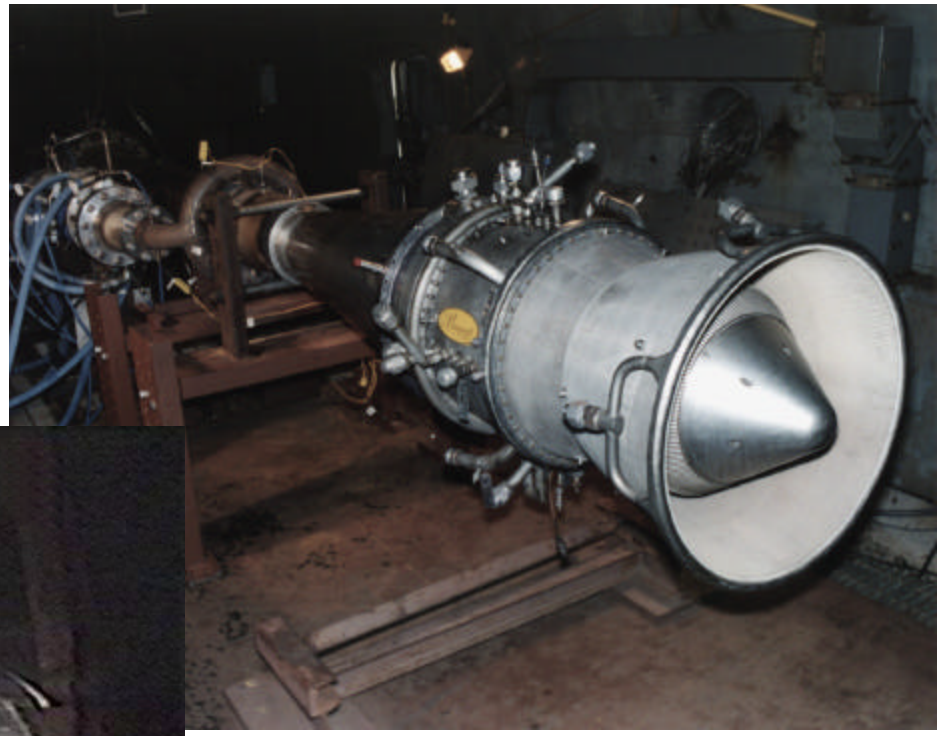
- Seating Accommodations – Similar
- En route Travel Time – Same
- Ticket Price Driven up by High Cost of Owning and Operating Subsonic Jetliners (e.g., after adjusting for inflation and normalizing by number of seats available per aircraft, purchase price of new jetliners has doubled since 1960).

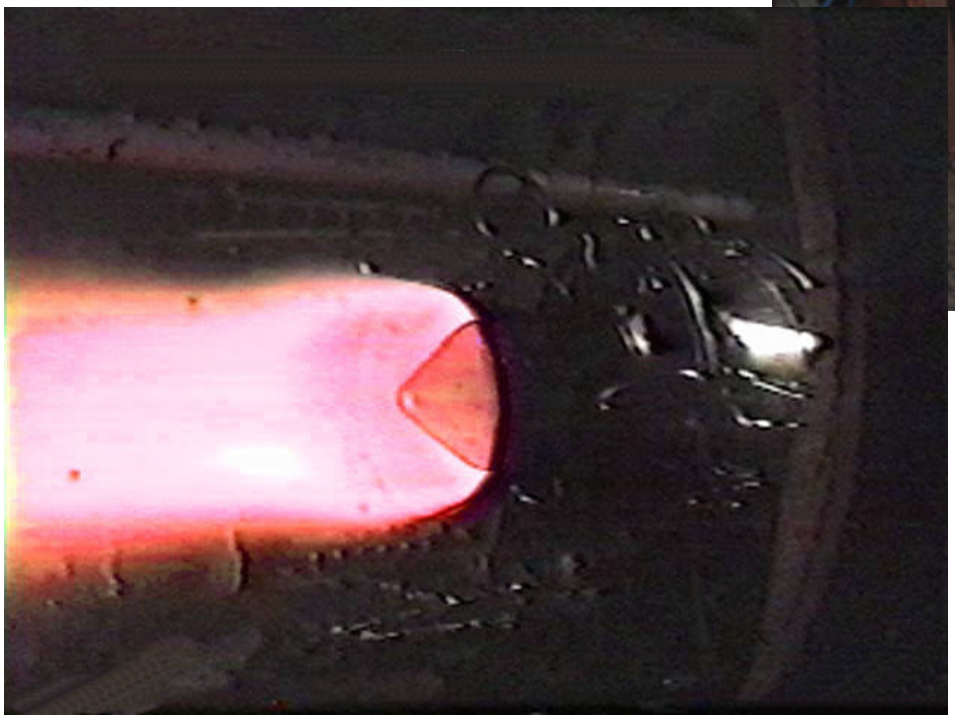
Aerospatiale/BAC Concorde



- Faster But Much Less Fuel Efficient
- High Cost of Tickets Benefits Only Upper Echelon of Passengers

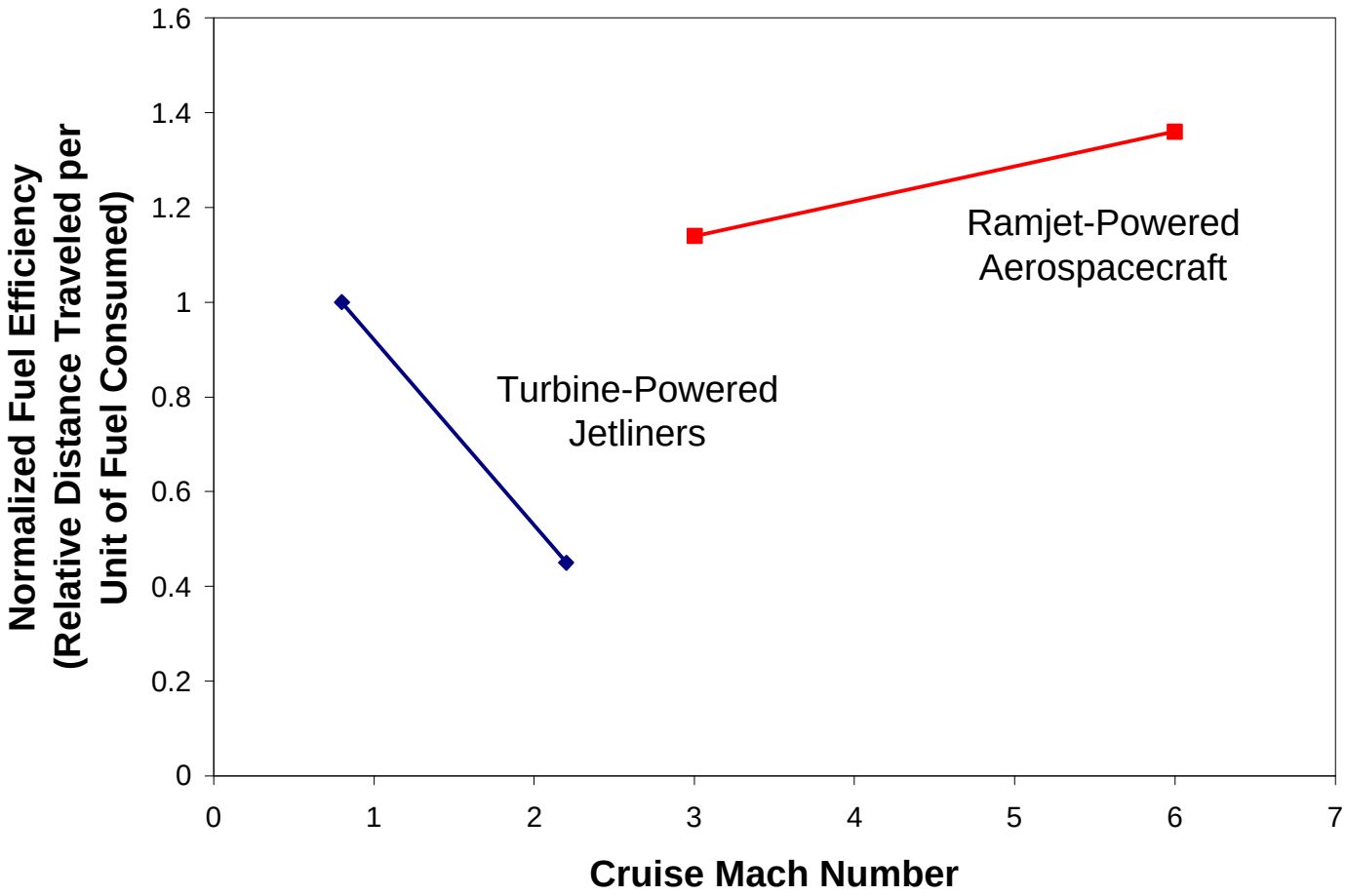
Ejector Ramjet Proof-of-Concept Testing Completed





- Twice as Fuel Efficient as Subsonic Turbofans
- Cruises Five Times Faster

Ramjet-Powered Aerospacecraft Offers Quantum Improvements



- Significantly Reduced Operating Cost (More Fuel Efficient)
- Significantly Reduced Travel Times (Faster Cruise Speeds)

Commercial Development Plan

Rapid Succession of Space and Aviation Development Cycles

- Component Technologies are Already Proven
- Next Step: Develop Autonomous Hypersonic Aerospacecraft
- Promptly Introduce System into Revenue-Generating Operations by Providing Space Transportation Launch Services
- Use Flight Experience to Build Database for Certification as “Commercial Transport”
- Inaugurate Economical, Hypersonic Commercial Aviation Services

Rapid Technical Advances Predicated on Establishment of “Aerospaceworthiness” Standard

- Base “Aerospaceworthiness Standard” on a Combination of both:
  - FAA Licensing Criteria for Launch Vehicles
  - FAA Airworthiness Criteria for Transport Aircraft
- Allows Access to Aviation-Based Insurance Rates.

Recommendation:

Provide Financial Incentives for Development of Advanced Aircraft

- Offer Similar Incentives as Those Provided to Assist in Financing “Surface” Transportation Infrastructure
- Use Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) as a Model
- Benefits
  - Public Rewarded with Quantum Improvement in Transportation Costs, Elapsed Times, and Reliability
  - Re-establish Pre-eminence of U.S. Aviation Industry

Vision on “The Future of Aviation: Is the Sky the Limit?”

- U.S. Government and Entrepreneurial Companies Such as SPACE ACCESS® Must Work Together to “Seamlessly Extend the U.S. Aviation Transportation Infrastructure Out into Space.”
- Implement Financial Incentives to Make Hypersonic Transportation “a Thing to Be Regarded As a Normal Feature of the World’s Future.”